

Claims

1. A feeder assembly comprising: a space receiving a wiring harness to be bend; a sliding member provided in the wiring harness; and a sliding guide, being provided in the space, to
5 guide the sliding member.
2. The feeder assembly according to claim 1, further comprising the space receiving the wiring harness bent in loop shape and the sliding guide to guide the sliding member to the direction
10 to which a loop portion of the wiring harness expands or contracts the diameter.
3. The feeder assembly according to claim 1, further comprising the space receiving the wiring harness bent in U-shape and the
15 sliding guide to guide the sliding member to the direction to which a bent portion of the wiring harness expands or contracts.
4. The feeder assembly according to any one of claims 1 to 3, wherein the space is provided in a protector and the sliding
20 guide is provided in the lengthwise direction of the protector.
5. The feeder assembly according to claim 2 or 4, wherein the sliding guide is formed in mountain shape.
- 25 6. The feeder assembly according to claim 2 or 4, wherein the sliding guide is formed slanted from one end to other end.

7. The feeder assembly according to claim 3 or 4, wherein the sliding guide having a straight portion and a slanted portion following to the straight portion.

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8. The feeder assembly according to claim 5 or 6, wherein the sliding guide is a pair of rails opposed to each other, the wiring harness is inserted between the pair of rails, and the sliding member is a spherical member which contacts to slide freely on the pair of rails.

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9. The feeder assembly according to claim 5 or 6, wherein the sliding guide is a pair of guiding through-holes or guiding grooves opposed to each other and the sliding member has an axis which engages to slide freely on the guiding through-holes or the guiding grooves.

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10. The feeder assembly according to claim 7, wherein the sliding guide is a wall of a long side of the protector.

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11. The feeder assembly according to any one of claims 4 to 10, an long opening to swing the wiring harness is provided in the lengthwise direction of the protector and an opening of the wiring fixing side is provided in one end side of the protector.

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12. The feeder assembly according to any one of claims 1 to 11,

wherein an insulating cover of each electric cable constituting the wiring harness is formed with a material which hardly degrades the rigidity with temperature and humidity changes.

5 13. The feeder assembly according to any one of claims 1 to 12, wherein a protection tube covering the circumference of the wiring harness is formed with a material which hardly degrades the rigidity with temperature and humidity changes.

10 14. The feeder assembly according to any one of claims 2 to 13, wherein a curved rigid member openable at a hinge is attached to the loop portion or the bent portion of the wiring harness.

15 15. A harness arrangement structure utilizing the feeder assembly comprising:

the space of the feeder assembly described in any one of claims 1 to 14 being disposed in a sliding structure body or a fixed structure body;

20 the sliding structure body engaging to slide on the fixed structure body, the wiring harness following to the sliding member being guided out of the space to the fixed structure body or the sliding structure body side; and

25 the wiring harness following to the loop portion being guided out and fixed to the sliding structure body or the fixed structure body side.

16. A harness arrangement structure utilizing the feeder assembly comprising:

the protector of the feeder assembly described in any one of claims 4 to 14 being disposed in a sliding structure body or a fixed structure body;

the sliding structure body engaging to slide the fixed structure body;

the wiring harness following to the sliding member being guided out of a long opening of the protector to the fixed structure body or the sliding structure body side; and

the wiring harness following to the loop portion being guided out and fixed to the sliding structure body or the fixed structure body side.

17. The harness arrangement structure utilizing the feeder assembly according to claims 15 or 16, wherein the feeder assembly is disposed vertically or horizontally.